Nikolai Peskov

List of Publications by Year in Descending Order

70 papers	605 citations	14 h-index	22 g-index
95 ext. papers	802 ext. citations	1.4 avg, IF	3.03 L-index

#	Paper	IF	Citations
70	Development of Powerful Spatially Extended W-Band Cherenkov Maser of Planar Geometry With Two-Dimensional Distributed Feedback. *IEEE Transactions on Electron Devices*, **2022**, 1-6	2.9	
69	High-Power Free-Electron Masers Based on Linear Induction Accelerators. *Radiophysics and Quantum Electronics*, **2021**, 63, 931	0.7	0
68	Powerful oversized W-band free-electron maser with advanced Bragg resonator based on coupling of propagating and cutoff waves. *Applied Physics Letters*, **2020**, 116, 213505	3.4	6
67	Powerful Long-Pulse Bragg FEL of Sub-THz to THz-band: Simulations and Tests of Electrodynamic System **2020**,		1
66	Sources of Powerful Terahertz Radiation Based on Coherent Spontaneous Emission from Electron Bunches Formed by Photo Injectors. *Radiophysics and Quantum Electronics*, **2020**, 63, 422-429	0.7	
65	Planar THz FELs Based on Intense Parallel Sheet Electron Beams and Intracavity Wave Scattering. *Bulletin of the Russian Academy of Sciences: Physics*, **2019**, 83, 140-145	0.4	1
64	Bragg Deflectors of Wave Fluxes for High-Power Relativistic Masers. *Technical Physics*, **2019**, 64, 711-719	0.5	
63	2D Bragg Resonators Based on Planar Dielectric Waveguides (from Theory to Model-Based Testing). *Semiconductors*, **2019**, 53, 1282-1286	0.7	1
62	Electron rf Oscillator Based on Self-Excitation of a Talbot-Type Supermode in an Oversized Cavity. *Physical Review Applied*, **2019**, 12,	4.3	5
61	Pumping Systems for Compton Free-Electron Lasers: Microwave Undulators and Powering Sources. *Radiophysics and Quantum Electronics*, **2019**, 62, 520-527	0.7	2
60	Experimental demonstration of free electron maser operation in the regime of non-resonant trapping. *Applied Physics Letters*, **2019**, 115, 163501	3.4	5
59	High-power broadband 30-GHz FEM amplifier operated in the grazing incident regime. *Applied Physics Letters*, **2017**, 110, 013501	3.4	8
58	Application of Modified Bragg Structures in High-Power Submillimeter Cyclotron Autoresonance Masers. *Radiophysics and Quantum Electronics*, **2017**, 59, 1017-1025	0.7	
57	Millimeter and submillimeter-wave, high-gradient accelerating structures **2017**,		4
56	Development of a High-Power Wideband Amplifier on the Basis of a Free-Electron Maser Having an Operating Frequency Near 30 GHz: Modeling and Results of the Initial Experiments. *Radiophysics and Quantum Electronics*, **2017**, 59, 674-681	0.7	1
55	Powerful multichannel planar FEMs based on intense parallel sheet beams **2017**,		1
54	Oversized Ka-band surface-wave oscillator based on 2D periodical corrugated structure **2017**,		1

53	Mode splitting effect in FEMs with oversized Bragg resonators. *Physics of Plasmas*, **2016**, 23, 073106	2.1	3
52	Peculiarities of the Mode Spectrum in Free-Electron Masers Based on Oversized Bragg Resonators with a Corrugation Phase Step. *Radiophysics and Quantum Electronics*, **2016**, 58, 745-754	0.7	1
51	Modeling of a High-Power Wideband Free-Electron Maser Amplifier with an Operating Frequency of 30 GHz to be Used in Particle Acceleration Experiments. *Radiophysics and Quantum Electronics*, **2016**, 58, 607-614	0.7	7
50	Powerful FEM-oscillators with advanced Bragg resonators operating in a single mode regime from Ka- to W-band **2016**,		8
49	Using Two-Dimensional Distributed Feedback for Synchronization of Radiation from Two Parallel-Sheet Electron Beams in a Free-Electron Maser. *Physical Review Letters*, **2016**, 117, 114801	7.4	32
48	Generation of a spatially coherent field structure in free-electron masers with 2D distributed feedback. *Technical Physics*, **2014**, 59, 250-257	0.5	1
47	A traveling-wave ring resonator with Bragg deflectors in a two-stage terahertz free-electron laser. *Technical Physics Letters*, **2014**, 40, 730-734	0.7	7
46	A spatially developed coaxial 30-GHz backward wave oscillator with radiation synchronization by a two-dimensional Bragg structure. *Technical Physics Letters*, **2013**, 39, 509-513	0.7	
45	Generation of powerful narrow-band 75-GHz radiation in a free-electron maser with two-dimensional distributed feedback. *Technical Physics Letters*, **2013**, 39, 801-804	0.7	8
44	Nonlinear theory of a free electron laser with a helical wiggler and an axial guide magnetic field. *Physical Review Special Topics: Accelerators and Beams*, **2013**, 16,		21
43	Narrow-band terahertz Bragg reflectors based on coupling of propagating and quasi-critical waves. *Technical Physics*, **2012**, 57, 415-421	0.5	1
42	Experimental testing of short-wave variable-frequency Bragg reflectors based on coupling of propagating and quasi-critical waves. *Technical Physics Letters*, **2012**, 38, 600-603	0.7	
41	High-power free-electron maser with frequency multiplication operating in a shortwave part of the millimeter wave range. *Technical Physics Letters*, **2012**, 38, 759-763	0.7	1
40	Applied research using a 30 GHz free-electron maser: Experimental study of interacton of high-power pulsed radiation with metals. *Radiophysics and Quantum Electronics*, **2012**, 54, 648-654	0.7	7
39	Short-wavelength tunable Bragg reflectors based on coupling of propagating and cutoff waves: Modeling and experimental studies. *Applied Physics Letters*, **2012**, 101, 083507	3.4	6
38	Nonlinear dynamics of free electron terahertz lasers with bragg mirrors based on coupling of traveling and quasi-critical waves. *Technical Physics*, **2011**, 56, 155-163	0.5	
37	Powerful Cherenkov oscillators with 2D distributed feedback. *Technical Physics*, **2011**, 56, 1791-1801	0.5	3
36	Experiment on pulse heating and surface degradation of a copper cavity powered by powerful 30 GHz free electron maser. *Physical Review Special Topics: Accelerators and Beams*, **2011**, 14,		24

35	Terahertz free-electron lasers with bragg structures based on the coupling between traveling and quasicritical waves. *JETP Letters*, **2010**, 91, 266-270	1.2	14
34	Nonlinear theory of coaxial free-electron masers with 2D distributed feedback (quasi-optical approximation). *Technical Physics*, **2010**, 55, 326-336	0.5	2
33	Cherenkov masers with two-dimensional distributed feedback. *Technical Physics Letters*, **2010**, 36, 83-87	0.7	8
32	Demonstrating high-power 30-GHz free-electron maser operation on a resonant load. *Technical Physics Letters*, **2010**, 36, 211-215	0.7	22
31	Free-electron maser with high-selectivity Bragg resonator using coupled propagating and trapped modes. *Technical Physics Letters*, **2010**, 36, 952-956	0.7	7
30	Using two-dimensional Bragg structures for the synchronization of radiation in planar backward wave oscillators. *Technical Physics Letters*, **2009**, 35, 190-192	0.7	3
29	Frequency stabilization in free-electron masers with 2D and 1D distributed feedback. *Technical Physics*, **2009**, 54, 1384-1388	0.5	1
28	Tunable terahertz band planar Bragg reflectors. *Applied Physics Letters*, **2009**, 95, 043504	3.4	28
27	Production of Powerful Spatially Coherent Radiation in Planar and Coaxial FEM Exploiting Two-Dimensional Distributed Feedback. *IEEE Transactions on Plasma Science*, **2009**, 37, 1792-1800	1.3	9
26	Generation of spatially coherent radiation in free-electron masers with two-dimensional distributed feedback. *JETP Letters*, **2008**, 87, 618-622	1.2	27
25	Observation of the high-Q modes inside the resonance zone of two-dimensional Bragg structures. *Applied Physics Letters*, **2008**, 92, 103512	3.4	11
24	Experimental observation of high-Q modes at the center of a resonance band of two-dimensional Bragg structures. *Technical Physics Letters*, **2007**, 33, 117-121	0.7	1
23	A high-speed quasi-optical wave phase switch based on the induced photoconductivity effect in silicon. *Technical Physics Letters*, **2007**, 33, 735-737	0.7	14
22	Experimental and theoretical studies of a coaxial free-electron maser based on two-dimensional distributed feedback. *Physical Review E*, **2007**, 76, 056406	2.4	39
21	Mechanism of free electron maser self-excitation using coupled propagating and trapped modes. *Technical Physics Letters*, **2006**, 32, 896-900	0.7	6
20	Feasibility of using a free-electron maser with a Bragg resonator for testing high-Q resonant structures. *Technical Physics*, **2006**, 51, 887-893	0.5	2
19	Theory of a planar free-electron maser with transverse electromagnetic flux circulation in a 2D Bragg mirror. *Technical Physics*, **2006**, 51, 1618-1623	0.5	3
18	Simulation of selective characteristics of two-dimensional planar Bragg resonators. *Radiophysics and Quantum Electronics*, **2006**, 49, 816-825	0.7	

17	Specific features of mode spectrum of planar structures with two-dimensional Bragg corrugation (theory and cold experiment). *Radiophysics and Quantum Electronics*, **2005**, 48, 748-761	0.7	2
16	Improving selectivity of free electron maser with 1D Bragg resonator using coupling of propagating and trapped waves. *Physical Review Special Topics: Accelerators and Beams*, **2005**, 8,		21
15	Effect of diffraction on the electrodynamic characteristics of two-dimensional coaxial Bragg resonators. *Technical Physics*, **2003**, 48, 1554-1564	0.5	3
14	Theory of free-electron maser with two-dimensional distributed feedback driven by an annular electron beam. *Journal of Applied Physics*, **2002**, 92, 1619-1629	2.5	25
13	Experimental studies of two-dimensional coaxial Bragg structures for a high-power free-electron maser. *Applied Physics Letters*, **2002**, 80, 1517-1519	3.4	33
12	Generation of Spatially Coherent Radiation in Free-Electron Lasers with Two-Dimensional Distributed Feedback. *Radiophysics and Quantum Electronics*, **2001**, 44, 494-512	0.7	3
11	A two-dimensional distributed feedback used for synchronization of a multibeam planar free-electron maser system. *Technical Physics Letters*, **2001**, 27, 240-244	0.7	3
10	Spatially coherent radiation from a coaxial free-electron laser with a resonator composed of one-dimensional and two-dimensional Bragg mirrors. *Technical Physics*, **2001**, 46, 1009-1013	0.5	2
9	The simulation of a free-electron laser amplifier with a ribbon relativistic electron beam. *Technical Physics*, **2001**, 46, 1545-1548	0.5	2
8	Planar two-dimensional Bragg resonators with corrugated surfaces: Theory and experiment. *Technical Physics Letters*, **2000**, 26, 348-351	0.7	3
7	Planar free-electron lasers with combined 1D/2D Bragg mirror resonators: A theoretical study. *Technical Physics Letters*, **2000**, 26, 701-704	0.7	4
6	High-efficiency single-mode free-electron maser oscillator based on a bragg resonator with step of phase of corrugation. *Physical Review Letters*, **2000**, 84, 3574-7	7.4	66
5	Theory and design of a free-electron maser with two-dimensional feedback driven by a sheet electron beam. *Physical Review E*, **1999**, 60, 935-45	2.4	61
4	Possibility of using a large orbit regime for operation at bounce-frequency harmonics in a free-electron maser with a guiding magnetic field. *Technical Physics Letters*, **1999**, 25, 12-14	0.7	4
3	Possible emission of supermodes in a free electron laser with a transversely developed interaction space. *Technical Physics Letters*, **1999**, 25, 179-181	0.7	
2	High-efficiency narrow-band free-electron maser using a Bragg cavity with a phase discontinuity in the ripples. *Technical Physics Letters*, **1999**, 25, 429-432	0.7	7
1	Possible use of two-dimensional Bragg structures in an FEL amplifier powered by a sheet electron beam. *Technical Physics Letters*, **1999**, 25, 796-799	0.7	2